

				FOR TUMOR TREATMENT	
<u>60118031</u>	Not Issued	159	02/01/1999	HOMOGENEOUS ENZYMATIC ASSAY FOR VITAMIN B6	XU , MINGXU
<u>60176444</u>	Not Issued	159	01/14/2000	HIGH EXPRESSION AND PRODUCTION OF HIGH-SPECIFIC ACTIVITY RECOMBINANT S-ADENOSYL HOMOCYSTEINASE (SAHH) AND IMPROVED ASSAYS FOR S-ADENOSYLMETHIONINE (SAM)	XU, MINGXU
<u>60345699</u>	Not Issued	020	12/31/2001	GFP AND RFP - LABELED BACTERIA TO TARGET TUMORS	XU, MINGXU

Inventor Search Completed: No Records to Display.

	Last Name	First Name	
Search Another: Inventor	<input type="text" value="xu"/>	<input type="text" value="mingxu"/>	<input type="button" value="Search"/>

(To go back use Back button on your browser toolbar.)

Back to [PALM](#) | [ASSIGNMENT](#) | [OASIS](#) | [Home page](#)

Day : Friday
Date : 8/16/2002
Time : 14:34:18

PALM INTRANET

Inventor Name Search Result

Your Search was:

Last Name = XU

First Name = MINGXU

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<u>08424300</u>	<u>5690929</u>	150	04/24/1995	USE OF METHIONINASE AND CHEMOTHERAPY AGENTS IN CHEMOTHERAPY	XU, MINGXU
<u>09195055</u>	Not Issued	071	11/18/1998	METHIONINASE GENE THERAPY FOR TUMOR TREATMENT	XU, MINGXU
<u>09340991</u>	<u>6066467</u>	150	06/28/1999	HIGH SPECIFICITY HOMOCYSTEINE ASSAYS FOR BIOLOGICAL SAMPLES	XU, MINGXU
<u>09495889</u>	<u>6426194</u>	150	02/01/2000	HOMOGENEOUS ENZYMATIC ASSAY FOR VITAMIN B6 AND IMPROVEMENTS IN H2S DETECTION	XU, MINGXU
<u>09549098</u>	Not Issued	164	04/12/2000	HIGH SPECIFICITY HOMOCYSTEINASES	XU, MINGXU
<u>09550723</u>	<u>6329162</u>	150	04/17/2000	BIOLOGICAL FLUID ASSAY METHODS	XU, MINGXU
<u>09568902</u>	Not Issued	041	05/11/2000	SELENIUM-CONTAINING PRO-DRUGS FOR CANCER THERAPY	XU, MINGXU
<u>09591078</u>	Not Issued	041	06/09/2000	MODULATORS OF METHYLATION FOR CONTROL OF BACTERIAL VIRULENCE	XU, MINGXU
<u>09759990</u>	Not Issued	030	01/12/2001	HIGH EXPRESSION AND PRODUCTION OF HIGH SPECIFIC ACTIVITY RECOMBINANT S-ADENOSYL HOMOCYSTEINASE (SAHH) AND IMPROVED ASSAYS FOR S-ADENOSYLMETHIONINE (SAM)	XU, MINGXU
<u>10003597</u>	Not Issued	071	10/30/2001	BIOLOGICAL FLUID ASSAY METHODS	XU, MINGXU
<u>10060857</u>	Not Issued	030	01/29/2002	FLUORESCENT PROTEINS	XU, MINGXU
<u>10192740</u>	Not Issued	019	07/09/2002	IMAGING INFECTION USING FLUORESCENT PROTEIN AS A MARKER	XU, MINGXU
<u>60103474</u>	Not Issued	159	10/08/1998	METHIONINASE GENE THERAPY	XU, MINGXU

WEST Search History

DATE: Friday, August 16, 2002

Set Name Query
side by side

Hit Count Set Name
result set

DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ

L1 methyltransferase and (homocysteine hydrolase or homocysteinase)

23 L1

END OF SEARCH HISTORY

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 10 of 23 returned.**☐ 1. Document ID: US 20020059663 A1

L1: Entry 1 of 23

File: PGPB

May 16, 2002

PGPUB-DOCUMENT-NUMBER: 20020059663

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020059663 A1

TITLE: Expressed sequences of arabidopsis thaliana

PUBLICATION-DATE: May 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gorlach, Jorn	Durham	NC	US	
An, Yong-Qiang	San Diego	CA	US	
Hamilton, Carol M.	Apex	NC	US	
Price, Jennifer L.	Raleigh	NC	US	
Raines, Tracy M.	Durham	NC	US	
Yu, Yang	Matinsville	NJ	US	
Rameaka, Joshua G.	Durham	NC	US	
Page, Amy	Durham	NC	US	
Mathew, Abraham V.	Cary	NC	US	
Ledford, Brooke L.	Holly Springs	NC	US	
Woessner, Jeffrey P.	Hillsborough	NC	US	
Haas, William David	Durham	NC	US	
Garcia, Carlos A.	Carrboro	NC	US	
Kricker, Maja	Pittsboro	NC	US	
Slater, Ted	Apex	NC	US	
Davis, Keith R.	Durham	NC	US	
Allen, Keith	Cary	NC	US	
Hoffman, Neil	Chapel Hill	NC	US	
Hurban, Patrick	Raleigh	NC	US	

US-CL-CURRENT: [800/298](#); [435/320.1](#), [435/419](#), [530/350](#), [536/23.6](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw Desc	Image
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☐ 2. Document ID: US 20020037545 A1

L1: Entry 2 of 23

File: PGPB

Mar 28, 2002

PGPUB-DOCUMENT-NUMBER: 20020037545

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020037545 A1

TITLE: Biological fluid assay methods

PUBLICATION-DATE: March 28, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Han, Qinghong	San Diego	CA	US	
Tang, Li	San Diego	CA	US	
Xu, Mingxu	San Diego	CA	US	
Tan, Yuying	San Diego	CA	US	
Yagi, Shigeo	San Diego	CA	US	

US-CL-CURRENT: 435/16

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 3. Document ID: US 20020023281 A1

L1: Entry 3 of 23

File: PGPB

Feb 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020023281
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020023281 A1

TITLE: Expressed sequences of arabidopsis thaliana

PUBLICATION-DATE: February 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gorlach, Jorn	Durham	NC	US	
An, Yong-Qiang	San Diego	CA	US	
Hamilton, Carol M.	Apex	NC	US	
Price, Jennifer L.	Raleigh	NC	US	
Raines, Tracy M.	Durham	NC	US	
Yu, Yang	Martinsville	NJ	US	
Rameaka, Joshua G.	Durham	NC	US	
Page, Amy	Durham	NC	US	
Mathew, Abraham V.	Cary	NC	US	
Ledford, Brooke L.	Holly Springs	NC	US	
Woessner, Jeffrey P.	Hillsborough	NC	US	
Haas, William David	Durham	NC	US	
Garcia, Carlos A.	Carrboro	NC	US	
Kricker, Maja	Pittsboro	NC	US	
Slater, Ted	Apex	NC	US	
Davis, Keith R.	Durham	NC	US	
Allen, Keith	Cary	NC	US	
Hoffman, Neil	Chapel Hill	NC	US	
Hurban, Patrick	Raleigh	NC	US	

US-CL-CURRENT: 800/288; 435/4, 536/23.2, 536/23.6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 4. Document ID: US 20020012939 A1

L1: Entry 4 of 23

File: PGPB

Jan 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020012939
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020012939 A1

TITLE: Methods for identifying drug targets based on genomic sequence data

PUBLICATION-DATE: January 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Palsson, Bernhard	La Jolla	CA	US	

US-CL-CURRENT: 435/6; 435/34, 702/20

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 5. Document ID: US 20020002146 A1

L1: Entry 5 of 23

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020002146

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020002146 A1

TITLE: Compositions and methods for the production of S-adenosylmethionine within the body

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Halevie-Goldman, Brian D.	Creek	CA	US	

US-CL-CURRENT: 514/47; 514/52, 514/561, 514/562, 514/563, 514/574

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 6. Document ID: US 20010051335 A1

L1: Entry 6 of 23

File: PGPB

Dec 13, 2001

PGPUB-DOCUMENT-NUMBER: 20010051335

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010051335 A1

TITLE: POLYNUCLEOTIDES AND POLYPEPTIDES DERIVED FROM CORN TASSEL

PUBLICATION-DATE: December 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
LALGUDI, RAGHUNATH V.	CLAYTON	MO	US	
ITO, LAURA Y.	PLEASANTON	CA	US	
SHERMAN, BRADLEY K.	OAKLAND	CA	US	

US-CL-CURRENT: 435/6; 435/69.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 7. Document ID: US 6429357 B1

L1: Entry 7 of 23

File: USPT

US-PAT-NO: 6429357

DOCUMENT-IDENTIFIER: US 6429357 B1

TITLE: Rice actin 2 promoter and intron and methods for use thereof

DATE-ISSUED: August 6, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McElroy; David	Palo Alto	CA		
Wu; Ray	Ithaca	NY		

US-CL-CURRENT: 800/278; 435/252.3, 435/320.1, 435/412, 435/413, 435/414, 435/416, 435/417, 435/418, 435/419, 435/468, 435/69.1, 536/23.1, 536/23.6, 536/24.1, 800/279, 800/281, 800/284, 800/289, 800/290, 800/292, 800/293, 800/294, 800/295, 800/298, 800/300, 800/301, 800/302, 800/303, 800/306, 800/312, 800/314, 800/317.2, 800/317.3, 800/317.4, 800/320, 800/320.1, 800/320.3, 800/322

ABSTRACT:

The current invention provides regulatory regions from the rice actin 2 gene. In particular, the current invention provides the rice actin 2 promoter and actin 2 intron. Compositions comprising these sequences are described, as well as transformation constructs derived therefrom. Further provided are methods for the expression of transgenes in plants comprising the use of these sequences. The methods of the invention include the direct creation of transgenic plants with the rice actin 2 intron and/or promoter directly by genetic transformation, as well as by plant breeding methods. The actin 2 sequences of the invention represent a valuable new tool for the creation of transgenic plants, preferably having one or more added beneficial characteristics.

32 Claims, 12 Drawing figures

Exemplary Claim Number: 15

Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 8. Document ID: US 6376210 B1

L1: Entry 8 of 23

File: USPT

US-PAT-NO: 6376210

DOCUMENT-IDENTIFIER: US 6376210 B1

TITLE: Methods and compositions for assaying analytes

DATE-ISSUED: April 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yuan; Chong-Sheng	San Diego	CA		

US-CL-CURRENT: 435/18; 435/195, 435/23, 435/252.3, 435/320.1, 435/455

ABSTRACT:

Compositions and methods for assaying analytes, preferably, small molecule analytes. Assay methods that employ, in place of antibodies or molecules that bind to target analytes or substrates, modified enzymes, called substrate trapping enzymes. These modified enzymes retain binding affinity or have enhanced binding affinity for a target substrate or analyte, but have attenuated catalytic activity with respect to that substrate or analyte. The modified enzymes are also provided. In particular, a mutant S-adenosylhomocysteine (SAH) hydrolases, substantially retaining binding affinity or having enhanced binding affinity for Hcy or SAH but having attenuated catalytic activity, are provided. Also provided are methods, combinations, kits and articles of manufacture for assaying analytes, preferably small molecule analytes such as inorganic ions, amino acids (e.g., homocysteine), peptides, nucleosides, nucleotides, oligonucleotides, vitamins, monosaccharides (e.g., glucose), oligosaccharides, lipids (e.g.,

cholesterol), organic acids (e.g., folate species, bile acids and uric acids).

16 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 9. Document ID: US 6329162 B1

L1: Entry 9 of 23

File: USPT

US-PAT-NO: 6329162

DOCUMENT-IDENTIFIER: US 6329162 B1

TITLE: Biological fluid assay methods

DATE-ISSUED: December 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Han; Qinghong	San Diego	CA		
Tang; Li	San Diego	CA		
Xu; Mingxu	San Diego	CA		
Tan; Yuying	San Diego	CA		
Yagi; Shigeo	San Diego	CA		

US-CL-CURRENT: 435/15; 435/4

ABSTRACT:

A method to assess the level of folate in a biological sample comprises:

providing said sample with glycine N-methyltransferase (GMT) and with an excess of S-adenosyl methionine (SAM) and of glycine;

providing a control which contains no folate with said GMT and excess SAM and glycine in comparable amounts to those provided to the sample; and

comparing the concentration of at least one product formed in the sample with the concentrations of said product formed in the control,

whereby the difference in levels of said product in the sample as compared to the control is directly proportional to the level of folate in the sample.

14 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 10. Document ID: US 6239264 B1

L1: Entry 10 of 23

File: USPT

US-PAT-NO: 6239264

DOCUMENT-IDENTIFIER: US 6239264 B1

TITLE: Genomic DNA sequences of ashbya gossypii and uses thereof

DATE-ISSUED: May 29, 2001

INVENTOR - INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Philippsen; Peter	Riehen			CH
Pohlmann; Rainer	Lorrach			DE
Steiner-Lange; Sabine	Bonn			DE
Mohr; Christine	Allschwil			CH
Wendland; Jurgen	Lorrach			DE
Knechtle; Philipp	Oberwil			CH
Rebischung; Corinne	Saint-Louis			FR

US-CL-CURRENT: 536/23.1; 435/320.1, 536/24.3, 536/24.32

ABSTRACT:

The present invention relates to the terminal sequencing of random genomic fragments performed with the filamentous fungus *A.gossypii*, to the sequences obtained therewith and the use of the sequences for forensic identification, to characterize genes and gene organization of this ascomycete by inter-genomic comparison, to identify biosynthetic genes that can be used as selection markers, to isolate promoters and terminators for application in a homologous as well as heterologous context, to find putative centromere containing clones, chromosome mapping, chromosome identifying, general information about chromosome organization and in addition to identify ORF containing SRS sequences with no homology to *S. cerevisiae* or any other organism which allows the identification of *A. gossypii* specific genes.

2 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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methyltransferase and (homocysteine hydrolase or homocysteinase)

23

Display Format:

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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 11 through 20 of 23 returned.**☐ **11. Document ID: US 6117849 A**

L1: Entry 11 of 23

File: USPT

US-PAT-NO: 6117849

DOCUMENT-IDENTIFIER: US 6117849 A

TITLE: S-(+)-adenosylmethionine and 3'-azido-2', 3'-dideoxy-nucleoside complexes as potent inhibitors of HIV-replication

DATE-ISSUED: September 12, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zimmermann; Kurt	Herborn-Seelbach			DE
Paradies; H. Heinrich	Iserlohn			DE

US-CL-CURRENT: 514/45; 514/42, 514/43, 514/46, 514/47, 514/48, 514/49, 514/50, 514/51, 514/885, 536/27.14, 536/27.31, 536/28.2

ABSTRACT:

Molecular Complexes, comprising of S-(+)-adenosylmethionine and 3'-azido-2',3'-dideoxy nucleosides are prepared, and shown to have synergistic inhibitory effects on the replication of human-immunodeficiency virus 1 & 2 in vitro and in vivo, particularly on the reverse transcriptase, and having a high therapeutic index.

23 Claims, 6 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWC	Draw Desc	Image
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☐ **12. Document ID: US 6063581 A**

L1: Entry 12 of 23

File: USPT

US-PAT-NO: 6063581

DOCUMENT-IDENTIFIER: US 6063581 A

TITLE: Immunoassay for homocysteine

DATE-ISSUED: May 16, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sundrehagen; Erling	Moss			NO

US-CL-CURRENT: 435/7.1; 435/15, 435/18, 435/7.9, 435/7.91, 435/7.93

ABSTRACT:

The invention relates to a method for assaying homocysteine in a sample such as blood, plasma or urine, which comprises the steps of contacting the sample with a homocysteine converting

enzyme and at least one substrate for the enzyme other than homocysteine, and without chromatographic separation, assessing a non-labelled analyte selected from a homocysteine co-substrate and the homocysteine conversion products of the enzymic conversion of homocysteine by said enzyme.

29 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 13. Document ID: US 6037524 A

L1: Entry 13 of 23

File: USPT

US-PAT-NO: 6037524
DOCUMENT-IDENTIFIER: US 6037524 A

TITLE: S-adenosyl-L-homocystein hydrolase promoter

DATE-ISSUED: March 14, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Greenland; Andrew James	Bracknell			GB
Draper; John	Leicester			GB
Skipsey; Mark	Leicester			GB
Warner; Simon	Leicester			GB

US-CL-CURRENT: 800/287; 435/320.1, 435/411, 435/412, 435/414, 435/417, 435/418, 435/419, 435/421, 435/468, 435/469, 536/23.6, 536/24.1, 800/279, 800/288, 800/294, 800/298, 800/306, 800/317.2, 800/317.3, 800/317.4, 800/320.1, 800/320.3

ABSTRACT:

A promoter derived from an SHH gene, especially the SHH gene of Arabidopsis thaliana which is capable of directing expression on a variety of operator genes in both monocotyledonous and dicotyledonous plants. The promoter of the invention may be used for directing expression of pathogen resistance genes to disease or wound sites.

12 Claims, 13 Drawing figures
Exemplary Claim Number: 1,2,10
Number of Drawing Sheets: 34

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 14. Document ID: US 6020139 A

L1: Entry 14 of 23

File: USPT

US-PAT-NO: 6020139
DOCUMENT-IDENTIFIER: US 6020139 A

TITLE: S-adenosyl methionine regulation of metabolic pathways and its use in diagnosis and therapy

DATE-ISSUED: February 1, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schwartz; Dennis E.	Redmond	WA		
Vermeulen; Nicolaas M. J.	Woodinville	WA		
O'Day; Christine L.	Mountlake Terrace	WA		

US-CL-CURRENT: 435/7.1; 435/192, 514/556

ABSTRACT:

A new paradigm of disease centers around the metabolic pathways of S-adenosyl-L-methionine (SAM), the intermediates of these pathways and other metabolic pathways influenced by the SAM pathways. Methods are provided to analyze and modulate SAM pathways associated with a disease or condition. Such methods permit identification and utilization of diagnostic and therapeutic protocols and agents for such disease states and conditions.

18 Claims, 12 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 15. Document ID: US 5958717 A

L1: Entry 15 of 23

File: USPT

US-PAT-NO: 5958717

DOCUMENT-IDENTIFIER: US 5958717 A

TITLE: Immunoassay for homocysteine

DATE-ISSUED: September 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sundrehagen; Erling	Moss			NO

US-CL-CURRENT: 435/18; 435/15, 435/16, 435/21, 435/23, 435/24, 435/28, 435/4, 435/7.1

ABSTRACT:

The invention relates to a method for assaying homocysteine in a sample such as blood, plasma or urine, which comprises the steps of contacting the sample with a homocystene conveying enzyme and at least one substrate for the enzyme other than homocysteine, and without chromatographic separation, assessing a non-labelled analyte selected from a homotysteine co-substrate and the homocysteine conversion products of the enzymic conversion of homocysteine by said enzyme.

13 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 16. Document ID: US 5854023 A

L1: Entry 16 of 23

File: USPT

US-PAT-NO: 5854023

DOCUMENT-IDENTIFIER: US 5854023 A

TITLE: Polynucleotides encoding human S-adenosyl-5-homocysteine hydrolase derived from bladder

DATE-ISSUED: December 29, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hillman; Jennifer L.	Mountain View	CA		
Corley; Neil C.	Mountain View	CA		
Lal; Preeti	Santa Clara	CA		
Shah; Purvi	Sunnyvale	CA		

US-CL-CURRENT: 435/69.1; 435/195, 435/252.3, 435/320.1, 435/325, 536/23.2

ABSTRACT:

The invention provides a human S-adenosyl-5-homocysteine hydrolase (SAHH) and polynucleotides which identify and encode SAHH. The invention also provides expression vectors, host cells, agonists, antibodies and antagonists. The invention also provides methods for treating disorders associated with expression of SAHH.

10 Claims, 14 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 14

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 17. Document ID: US 5827645 A

L1: Entry 17 of 23

File: USPT

US-PAT-NO: 5827645

DOCUMENT-IDENTIFIER: US 5827645 A

TITLE: Homocysteine assay

DATE-ISSUED: October 27, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sundrehagen; Erling	Moss			NO

US-CL-CURRENT: 435/4; 435/15, 435/16, 435/18, 435/21, 435/23, 435/24, 435/28, 435/7.1, 435/975

ABSTRACT:

The invention relates to a method for assaying homocysteine in a sample such as blood, plasma, or urine, which comprises the steps of contacting the sample with a homocysteine converting enzyme and at least one substrate for the enzyme other than homocysteine, and without chromatographic separation, assessing a non-labelled analyte selected from a homocysteine co-substrate and the homocysteine conversion products of the enzymic conversion of homocysteine by said enzyme.

23 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 18. Document ID: US 5783605 A

L1: Entry 18 of 23

File: USPT

US-PAT-NO: 5783605

DOCUMENT-IDENTIFIER: US 5783605 A

TITLE: Helper inducers for differentiation therapy and chemoprevention of cancer

DATE-ISSUED: July 21, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kuo; Sheng-Chu	Taichung			TW
Lee; Jau-Hong	Taichung			TW

US-CL-CURRENT: 514/629; 514/415, 514/418, 514/419, 514/544, 514/570

ABSTRACT:

Cancer cells are blocked from entering differentiation pathways because of abnormal methylation enzymes, which are responsible for keeping cancer cells in cycling state. Effective differentiation inducers are those capable of acting directly or indirectly to convert abnormal methylation enzymes into normal enzymes, thereby enabling cancer cells to undergo terminal differentiation. Differentiation employing inducer alone often can not reach completion because of the damage created by the inducer. Such damage can be prevented if differentiation is induced in the presence of helper inducers, which are basically inhibitors of the component enzymes of methylation. Thus, differentiation induced in the presence of helper inducers is more likely to reach completion. Therefore, helper inducers are essential components of differentiation therapy, not just merely to potentiate the activity of differentiation inducers. The present inventors discover that alkyl phenylacetamides, alkyl phenylacetate, 2,4-dichlorophenylacetate, and indole acetate are potent helper inducers.

2 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 19. Document ID: US 5631127 A

L1: Entry 19 of 23

File: USPT

US-PAT-NO: 5631127

DOCUMENT-IDENTIFIER: US 5631127 A

TITLE: Enzymatic assay for homocysteine and a kit therefor

DATE-ISSUED: May 20, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sundrehagen; Erling	Moss			NO

US-CL-CURRENT: 435/4; 435/15, 435/18, 435/21, 435/810, 435/975, 514/499

ABSTRACT:

The invention relates to a method for assaying homocysteine in a sample such as blood, plasma or urine, which comprises the steps of contacting the sample with a homocysteine converting enzyme and at least one substrate for the enzyme other than homocysteine, and without chromatographic separation, assessing a non-labelled analyte selected from a homocysteine co-substrate and the homocysteine conversion products of the enzymic conversion of homocysteine by said enzyme.

24 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 20. Document ID: US 5455234 A

L1: Entry 20 of 23

File: USPT

US-PAT-NO: 5455234

DOCUMENT-IDENTIFIER: US 5455234 A

TITLE: Inhibition of hair growth

DATE-ISSUED: October 3, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ahluwalia; Gurpreet S.	Gaithersburg	MD	20879	
Shander; Douglas	Gaithersburg	MD	20878	

US-CL-CURRENT: 514/46, 514/303, 514/354, 514/50, 514/534, 514/561, 536/27.13, 536/27.22, 536/27.3, 536/27.31, 536/27.6, 536/28.3, 546/118, 546/324, 560/171, 562/503, 562/504, 562/505, 562/556, 562/559, 562/564, 562/574, 562/588

ABSTRACT:

Mammalian hair growth is reduced by applying to the skin an inhibitor of a cysteine synthetic pathway enzyme.

35 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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Terms	Documents
methyltransferase and (homocysteine hydrolase or homocysteinase)	23

Display Format:

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Search Results - Record(s) 21 through 23 of 23 returned.☐ **21. Document ID: US 5272054 A**

L1: Entry 21 of 23

File: USPT

US-PAT-NO: 5272054

DOCUMENT-IDENTIFIER: US 5272054 A

TITLE: Assay by enzyme-catalyzed isotopic exchange

DATE-ISSUED: December 21, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Switchenko; Arthur C.	Sunnyvale	CA		
Ullman; Edwin F.	Atherton	CA		

US-CL-CURRENT: 435/4; 435/15, 435/189, 435/191, 435/26, 435/7.72, 435/7.9, 435/810, 435/814, 435/968, 435/975, 436/504, 436/542, 436/545, 436/804

ABSTRACT:

A method of assay for isotopically exchangeable analytes is disclosed. Analytes are labeled by enzymatic exchange of a hydrogen atom of the analyte and a deuterium or tritium atom. Preferably, analytes are labeled by reaction with an oxidant, a reducing agent which contains a deuterium or tritium atom, and an enzyme capable of catalyzing the reversible exchange of a hydrogen atom between the analyte, the oxidant, and the reducing agent. Kits for conveniently performing the assay methods are also disclosed.

50 Claims, 0 Drawing figures

Exemplary Claim Number: 1

Full	Title	Abstract	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ **22. Document ID: US 4148888 A**

L1: Entry 22 of 23

File: USPT

US-PAT-NO: 4148888

DOCUMENT-IDENTIFIER: US 4148888 A

TITLE: 3-Deazaadenosine as an inhibitor of adenosylhomocysteine hydrolase with antiviral activity

DATE-ISSUED: April 10, 1979

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cantoni; Giulio L.	Bethesda	MD		
Chiang; Peter K.	Kensington	MD		
Richards; Henry H.	Washington	DC		

US-CL-CURRENT: 514/45; 435/235.1, 435/384, 435/391, 435/88

ABSTRACT:

3-Deazaadenosine has been found to be an effective antiviral and antifocal agent in tissue culture of animals as evidenced by its activity against Rous sarcoma virus, influenza virus, vesicular stomatitis virus, Sindbis virus, and Newcastle disease virus in the range 0.03-0.3 mM. This compound has also shown use as an inhibitor of adenosylhomocysteine hydrolase from beef liver in the range of 0.001-0.008 mM (I.sub.50). The antiviral and antifocal effect is correlated with the inhibition of hydrolysis of adenosylhomocysteine in cells. This inhibition of adenosylhomocysteine hydrolase can also be demonstrated in livers of rats injected with 3-deazaadenosine.

7 Claims, 0 Drawing figures
Exemplary Claim Number: 1,6,7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw Desc	Image
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☐ 23. Document ID: WO 200151651 A2 AU 200126397 A

L1: Entry 23 of 23

File: DWPI

Jul 19, 2001

DERWENT-ACC-NO: 2001-451863
DERWENT-WEEK: 200148
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TITLE: Assessing therapeutic levels of S-adenosylmethionine comprises measuring reaction products in sample containing glycine N-methyltransferase, (His) S-adenosyl homocysteine hydrolase and glycine

INVENTOR: HAN, Q; HOFFMAN, R M ; XU, M

PRIORITY-DATA: 2000US-176444P (January 14, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200151651 A2	July 19, 2001	E	028	C12Q001/48
AU 200126397 A	July 24, 2001		000	C12Q001/48

INT-CL (IPC): C07 K 14/44; C12 N 15/52; C12 Q 1/48

ABSTRACTED-PUB-NO: WO 200151651A
BASIC-ABSTRACT:

NOVELTY - Assessing therapeutic levels of S-adenosylmethionine (SAM) in a biological fluid sample comprising measuring one or more reaction products in a sample containing glycine N-methyltransferase (GMT), an S-adenosyl homocysteine hydrolase (SAHH) or His.SAHH, and glycine, where the level of one or more products is directly proportional to the level of SAM in the sample, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a kit for assaying a sample containing SAM comprising SAHH or His.SAHH, GMT, glycine and instructions for use;
- (2) an assay comprising a biological sample containing SAM, and GMT, glycine, and SAHH or His.SAHH, where SAHH or His.SAHH activity results in a product which can be measured to determine the amount of SAM in the sample;
- (3) an isolated nucleic acid (sequence not given in the specification);
- (4) efficient production of SAHH by expressing a cassette comprising the nucleic acid of (3);
- (5) purifying His.SAHH by precipitating a suspension containing His.SAHH produced from (4), with ammonium sulfate to produce a supernatant and a precipitate, and subjecting the supernatant to His Tag recognizing affinity chromatography;
- (6) purifying His.SAHH with a single chromatography step by subjecting His.SAHH from (4) to Ni-NAT affinity chromatography;

- (7) measuring homocysteine in a biological fluid by contacting the fluid with His.SAHH and measuring the homocysteine to SAH conversion;
- (8) a composition comprising His.SAHH which yields a single band upon analysis by sodium dodecyl sulfate (SDS) polyacrylamide gel electrophoresis;
- (9) depleting excess homocysteine in a biological fluid in vivo or ex vivo by contacting the fluid with SAHH; and
- Escherichia coli host cells comprising the nucleic acids.

USE - The method is useful for assaying therapeutic levels of SAM in a biological sample. The method may be used as a part of a diagnostic protocol or as part of a therapeutic protocol, where conditions or progress of the therapy may be monitored. SAHH or His.SAHH may be used as a reagent, particularly screening for inhibitors and inactivators of the enzyme for use as reagents themselves as potential therapeutics, e.g. in cancer, malaria, arthritis and other diseases. Recombinant SAHH may be used as a therapeutic cancer gene in combination with SAH analogs.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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Terms	Documents
methyltransferase and (homocysteine hydrolase or homocysteinase)	23

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STN SEARCH

09/759,990

8/16/02

=> file .nash

=> s glycine n-methyltransferase and (adenosyl homocysteine hydrolase or homocysteinase)

L1 0 FILE MEDLINE
L2 1 FILE CAPLUS
L3 0 FILE SCISEARCH
L4 0 FILE LIFESCI
L5 0 FILE BIOSIS
L6 0 FILE EMBASE

TOTAL FOR ALL FILES

L7 1 GLYCINE N-METHYLTRANSFERASE AND (ADENOSYL HOMOCYSTEINE HYDROLASE
OR HOMOCYSTEINASE)

=> d ibib abs

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:756902 CAPLUS

DOCUMENT NUMBER: 133:319274

TITLE: Biological fluid enzymic assay methods for folate and other analytes

INVENTOR(S): Han, Quinghong; Tang, Li; Xu, Mingxu; Tan, Yuying; Yagi, Shigeo

PATENT ASSIGNEE(S): Anticancer, Inc., USA

SOURCE: PCT Int. Appl., 12 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000063420	A2	20001026	WO 2000-US10430	20000417
WO 2000063420	A3	20010426		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6329162	B1	20011211	US 2000-550723	20000417
EP 1171630	A2	20020116	EP 2000-922298	20000417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002037545	A1	20020328	US 2001-3597	20011030
PRIORITY APPLN. INFO.:				
US 1999-129730P P 19990416				
US 2000-550723 A3 20000417				
WO 2000-US10430 W 20000417				

AB A method to assess the level of folate in a biol. sample comprises: providing said sample with **glycine N-methyltransferase** (GMT) and with an excess of S-adenosyl methionine (SAM) and of glycine; providing a control which contains no folate with said GMT and excess SAM and glycine in comparable amts. to those provided to the sample; and comparing the concn. of at least one product formed in the sample with the concns. of said product formed in the control, whereby the difference in levels of said product in the sample as compared to the control is directly proportional to the level of folate in the sample. Also disclosed is a method to detect and measure the concn. of analytes which can be subjected to protocols that generate hydrogen peroxide. This method comprises measuring the level of hydrogen peroxide by adding peroxidase and a dialkylphenylene diamine.

=> s glycine n-methyltransferase and (adenosyl homocysteine hydrolase or homocysteinase or sahh)

TOTAL FOR ALL FILES

L14 1 GLYCINE N-METHYLTRANSFERASE AND (ADENOSYL HOMOCYSTEINE HYDROLASE
OR HOMOCYSTEINASE OR SAHH)

=> s glycine n-methyltransferase

TOTAL FOR ALL FILES

L21 296 GLYCINE N-METHYLTRANSFERASE

=> s 121 and (adenosylmethionine or sam)

TOTAL FOR ALL FILES

L28 150 L21 AND (ADENOSYLMETHIONINE OR SAM)

=> s 128 and h2s

TOTAL FOR ALL FILES

L35 0 L28 AND H2S

=> s 128 and homocysteinase

TOTAL FOR ALL FILES

L42 1 L28 AND HOMOCYSTEINASE

=> s 128 and hydrolase

TOTAL FOR ALL FILES

L49 7 L28 AND HYDROLASE

=> dup rem 149

PROCESSING COMPLETED FOR L49

L50 5 DUP REM L49 (2 DUPLICATES REMOVED)

=> d ibib abs 1-5

L50 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:43345 CAPLUS

DOCUMENT NUMBER: 136:319709

TITLE: Transcriptional profiling reveals global defects in energy metabolism, lipoprotein, and bile acid synthesis and transport with reversal by leptin treatment in Ob/ob mouse liver

AUTHOR(S): Liang, Chien-Ping; Tall, Alan R.

CORPORATE SOURCE: Division of Molecular Medicine, Department of Medicine, Columbia University, New York, NY, 10032, USA

SOURCE: Journal of Biological Chemistry (2001), 276(52), 49066-49076

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Leptin, a hormone secreted by adipose tissue, has been shown to have a major influence on hepatic lipid and lipoprotein metab. To characterize changes in lipid and lipoprotein gene expression in mouse liver, suppression subtractive hybridization and cDNA microarray anal. were used to identify mRNAs differentially expressed after leptin treatment of ob/ob mice. Ob/ob mice showed a profound decrease in mRNAs encoding genes controlling bile acid synthesis and transport as well as a variety of apolipoprotein genes and hepatic lipase with reversal upon leptin administration, suggesting that leptin coordinately regulates high d. lipoprotein and bile salt metab. Leptin administration also resulted in decreased expression of genes involved in fatty acid and cholesterol synthesis, glycolysis, gluconeogenesis, and urea synthesis, and increased expression of genes mediating fatty acid oxidn., ATP synthesis, and oxidant defenses. The changes in mRNA expression are consistent with a switch in energy metab. from glucose utilization and fatty acid synthesis to fatty acid oxidn. and increased respiration. The latter changes may produce oxidant stress, explaining the unexpected finding that leptin induces a battery of genes involved in antioxidant defenses. Expression cluster anal. revealed responses of several sets of genes that were kinetically linked. Thus, the mRNA levels of genes involved in fatty acid and cholesterol synthesis are rapidly (<1 h) repressed by leptin administration, in assocn. with an acute decrease in plasma insulin levels and decreased sterol regulator element-binding protein-1 expression. In contrast, genes participating in fatty acid oxidn. and ketogenesis were induced more slowly (24 h), following an increase in expression of their common regulatory factor, peroxisome proliferator-activated receptor .alpha.. However, the regulation of genes involved in high d. lipoprotein and bile salt metab. shows complex kinetics and is likely to be mediated by novel transcription factors.

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:683289 CAPLUS

DOCUMENT NUMBER: 135:340385

TITLE: Quantitative proteomic analysis of mouse liver response to the peroxisome proliferator diethylhexylphthalate (DEHP)

AUTHOR(S): MacDonald, Neil; Chevalier, Stephan; Tonge, Robert; Davison, Matthew; Rowlinson, Rachel; Young, Janice; Rayner, Steve; Roberts, Ruth

CORPORATE SOURCE: Syngenta Central Toxicology Laboratory, Cheshire, Alderley Park, Macclesfield, SK10 4TJ, UK

SOURCE: Archives of Toxicology (2001), 75(7), 415-424
CODEN: ARTODN; ISSN: 0340-5761

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Peroxisome proliferators (PPs) are a diverse group of chems. that cause hepatic proliferation, suppression of apoptosis, peroxisome proliferation and liver tumors in rodents. The biochem. response to PPs involves changes in the expression of peroxisomal .beta.-oxidn. enzymes and fatty acid transport proteins such as acyl-CoA oxidase and liver fatty acid binding protein. The response to PPs is mediated by the peroxisome proliferator-activated receptor .alpha. (PPAR.alpha.) and the livers of PPAR.alpha.-null transgenic mice do not develop tumors in response to PPs. In order to identify the mol. pathways underlying the adverse effects of PPs in rodent liver, we carried out two-dimensional differential gel electrophoresis to provide quant. proteomic analyses of diethylhexylphthalate (DEHP)-treated wild-type or PPAR.alpha.-null mouse livers. Since tumorigenesis is both PP- and PPAR.alpha.-dependent, analyses were focused on these changes. Fifty-nine proteins were identified where altered expression was both PPAR.alpha.- and PP-dependent. In addn., six proteins regulated by the deletion of PPAR.alpha. were identified, possibly indicating an adaptive change in response to the loss of this receptor. The proteins that we identified as being regulated by PPAR.alpha. are known to be involved in lipid metab. pathways, but also in amino acid and carbohydrate metab., mitochondrial bioenergetics and in stress responses including several genes not previously reported to be regulated by PPAR.alpha.. These data provide novel insights into the pathways utilized by PPs and may assist in the identification of early markers rodent nongenotoxic hepatocarcinogenesis.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 3 OF 5 SCISEARCH COPYRIGHT 2002 ISI (R)

ACCESSION NUMBER: 97:694435 SCISEARCH

THE GENUINE ARTICLE: XV706

TITLE: Pancreatic exocrine secretion is blocked by inhibitors of methylation

AUTHOR: Capdevila A; DechaUmphai W; Song K H; Borchardt R T; Wagner C (Reprint)

CORPORATE SOURCE: VANDERBILT UNIV, SCH MED, DEPT BIOCHEM, 620 LIGHT HALL, NASHVILLE, TN 37232 (Reprint); VANDERBILT UNIV, SCH MED, DEPT BIOCHEM, NASHVILLE, TN 37232; DEPT VET AFFAIRS MED CTR, NASHVILLE, TN 37212; UNIV KANSAS, DEPT PHARMACEUT CHEM, SIMON RES LABS, LAWRENCE, KS 66047

COUNTRY OF AUTHOR: USA

SOURCE: ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, (1 SEP 1997) Vol. 345, No. 1, pp. 47-55.

Publisher: ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495.

ISSN: 0003-9861.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: English

REFERENCE COUNT: 46

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A number of early experiments suggested a relationship between methyl group metabolism and the exocrine secretion of the pancreas. These included nutritional studies showing that ethionine, the ethyl analog of

methionine which inhibits cellular methylation reactions, is a specific pancreatic toxin. Other studies indicated that protein carboxymethylation might be involved. We now show that in vivo ethionine inhibits amylase secretion from freshly isolated rat pancreatic acini, while in vitro ethionine inhibits amylase secretion from the ARA2J pancreatic cell line. S-Adenosylhomocysteine (SAH) is a product inhibitor of all methyltransferase reactions involving S-adenosylmethionine (SAM), and treatments that elevate cellular levels of SAH such as inhibition of S-adenosylhomocysteine hydrolase and the in vitro addition of adenosine and homocysteine result in the inhibition of amylase secretion in both isolated pancreatic acini and AR42J cells. Measurement of SAM and SAH levels in AR42J cells shows that inhibition of secretion is more closely related to elevation of SAH levels than to a decrease in the SAM/SAH ratio. Small G-proteins are carboxymethylated on the C-terminal prenylated cysteine and inhibitors of membrane-associated prenylcysteine methyltransferase, N-acetylfarnesylcysteine, N-acetylgeranylgeranylcysteine, and farnesylthioacetic acid (FTA), block secretion in AR42J cells. N-Acetylgeranylcysteine is not an inhibitor of the methyltransferase and does not inhibit amylase secretion. FTA inhibits membrane-associated prenylcysteine methyltransferase from AR42J cells with a K-i in the 45-69 μ M range. These results suggest that a methylation event is needed for pancreatic exocrine secretion which may be the reversible methylation of a G-protein involved in signal transduction or membrane trafficking. (C) 1997 Academic Press.

L50 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:918737 CAPLUS

DOCUMENT NUMBER: 123:333343

TITLE: Specific staining of **glycine N-methyltransferase**

AUTHOR(S): Santos, Fatima; Amorim, Antonio; Koempf, Jost

CORPORATE SOURCE: Faculdade de Ciencias, Univ. Porto, Oporto, Port.

SOURCE: Electrophoresis (1995), 16(10), 1898-9

CODEN: ELCTDN; ISSN: 0173-0835

DOCUMENT TYPE: Journal

LANGUAGE: English

AB **Glycine N-methyltransferase** from rabbit, human, rat and pig livers was sepd. by isoelec. focusing and a specific functional staining method was developed through the detection of sarcosine produced from the methylation of glycine. Isoenzyme patterns obtained in the various species tested differ both in the no. of bands and apparent isoelec. points. These differences may explain the contradictory data on the subunit structure and glycosylation status of the enzyme reported so far.

L50 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 1

ACCESSION NUMBER: 1978:19513 CAPLUS

DOCUMENT NUMBER: 88:19513

TITLE: Tissue distribution of S-adenosylmethionine and S-adenosylhomocysteine in rat. Effect of age, sex and methionine administration on the metabolism of S-adenosylmethionine, S-adenosylhomocysteine and polyamines

AUTHOR(S): Eloranta, Terho O.

CORPORATE SOURCE: Dep. Biochem., Univ. Kuopio, Kuopio, Finland

SOURCE: Biochem. J. (1977), 166(3), 521-9

CODEN: BIJOAK

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The distribution of S-adenosylmethionine (I), S-adenosylhomocysteine (II), methionine adenosyltransferase (EC 2.5.1.6) (III), and S-adenosylhomocysteine hydrolase (EC 3.3.1.1) (IV) in rat tissues was similar in males and females and changed only slightly with age. The sp. activity of IV was greater than that of III, and the concn. of I was greater than that of II in all tissues. However, the hepatic I/II ratio depended on food supply and age. Methionine administration (i.p.) produced a transient increase in hepatic I and II concns. and brain I was elevated during the first 2 h after methionine injection. Simultaneous glycine administration decreased the rise in I concn. induced by methionine. The tissue concn. of methionine may be the

rate-limiting factor in I formation. **Glycine N-methyltransferase** may have a regulatory role in hepatic utilization of I.

=> s n-methyltransferase and (adenosyl homocysteine hydrolase or homocysteinase or sahh)
TOTAL FOR ALL FILES

L57 7 N-METHYLTRANSFERASE AND (ADENOSYL HOMOCYSTEINE HYDROLASE OR
HOMOCYSTEINASE OR SAHH)

=> dup rem 157
PROCESSING COMPLETED FOR L57
L58 4 DUP REM L57 (3 DUPLICATES REMOVED)

=> d ibib abs 1-4

L58 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:521969 CAPLUS

DOCUMENT NUMBER: 137:90000

TITLE: Protein-protein interactions in adipocyte cells and
method for selecting modulators of these interactions

INVENTOR(S): Legrain, Pierre; Marullo, Stefano; Jockers, Ralf

PATENT ASSIGNEE(S): Hybrigenics, Fr.; Centre National De La Recherche
Scientifique

SOURCE: PCT Int. Appl., 125 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053726	A2	20020711	WO 2001-EP15423	20011228
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 2001-259377P P 20010102

AB The present invention relates to protein-protein interactions of adipocyte. More specifically, the present invention relates to complexes of polypeptides, or polynucleotides encoding the polypeptides, fragments of the polypeptides, antibodies to the complexes. Selected Interacting Domains (SID.RTM.) which are identified due to the protein-protein interactions, methods for screening drugs for agents which modulate the interaction of proteins, and pharmaceutical compns. that are capable of modulating the protein-protein interactions are further disclosed.

L58 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:763235 CAPLUS

DOCUMENT NUMBER: 135:314399

TITLE: Detection of variations in the DNA methylation profile of genes in the determining the risk of disease

INVENTOR(S): Berlin, Kurt; Piepenbrock, Christian; Olek, Alexander

PATENT ASSIGNEE(S): Epigenomics A.-G., Germany

SOURCE: PCT Int. Appl., 636 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 68

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077373	A2	20011018	WO 2001-DE1486	20010406
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,			

CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
DE 10019058 A1 20011220 DE 2000-10019058 20000406
WO 2001077373 A2 20011018 WO 2001-XA1486 20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG
WO 2001077373 A2 20011018 WO 2001-XB1486 20010406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: DE 2000-10019058 A 20000406
WO 2001-DE1486 W 20010406
AB The invention relates to an oligonucleotide kit as probe for the detection
of relevant variations in the DNA methylation of a target group of genes.
The invention further relates to the use of the same for detg. the gene
variant with regard to DNA methylation, a medical device, using an
oligonucleotide kit, a method for detg. the methylation state of an
individual and a method for the establishment of a model for establishing
the probability of onset of a disease state in an individual. Such
diseases may be: undesired pharmaceutical side-effects; cancerous
diseases; CNS dysfunctions, injuries or diseases; aggressive symptoms or
relational disturbances; clin., psychol. and social consequences of brain
injury; psychotic disorders and personality disorders; dementia and/or
assocd. syndromes; cardiovascular disease, dysfunction and damage;
dysfunction, damage or disease of the gastrointestinal tract; dysfunction,
damage or disease of the respiratory system; injury, inflammation,
infection, immunity and/or anastasis; dysfunction, damage or disease of
the body as an abnormal development process; dysfunction, damage or
disease of the skin, muscle, connective tissue or bones; endocrine and
metabolic dysfunction, damage or disease; headaches or sexual dysfunction.
This abstr. record is one of several records for this document
necessitated by the large no. of index entries required to fully index the
document and publication system constraints.

L58 ANSWER 3 OF 4 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002006765 IN-PROCESS
DOCUMENT NUMBER: 21107257 PubMed ID: 11161043
TITLE: Maintaining methylation activities during salt stress. the
involvement of adenosine kinase.
AUTHOR: Weretilnyk E A; Alexander K J; Drebenstedt M; Snider J D;
Summers P S; Moffatt B A
CORPORATE SOURCE: Department of Biology, McMaster University, Hamilton,
Ontario, Canada L8S 4K1.
SOURCE: PLANT PHYSIOLOGY, (2001 Feb) 125 (2) 856-65.
Journal code: 0401224. ISSN: 0032-0889.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 20020121
Last Updated on STN: 20020121
AB Synthesis of the compatible osmolyte Gly betaine is increased in

salt-stressed spinach (*Spinacia oleracea*). Glycine betaine arises by oxidation of choline from phosphocholine. Phosphocholine is synthesized in the cytosol by three successive S-adenosyl-Met-dependent N-methylations of phosphoethanolamine. With each transmethylation, a molecule of S-adenosylhomo-Cys (SAH) is produced, a potent inhibitor of S-adenosyl-Met-dependent methyltransferases. We examined two enzymes involved in SAH metabolism: SAH hydrolase (SAHH) catabolizes SAH to adenosine plus homo-Cys and adenosine kinase (ADK) converts adenosine to adenosine monophosphate. In vitro SAHH and ADK activities increased incrementally in extracts from leaves of spinach plants subjected to successively higher levels of salt stress and these changes reflected increased levels of SAHH and ADK protein and transcripts. Another Glycine betaine accumulator, sugar beet (*Beta vulgaris*), also showed salt-responsive increases in SAHH and ADK activities and protein whereas tobacco (*Nicotiana tabacum*) and canola (*Brassica napus*), which do not accumulate Glycine betaine, did not show comparable changes in these enzymes. In spinach, subcellular localization positions SAHH and ADK in the cytosol with the phospho-base N-methyltransferase activities. Because SAHH activity is inhibited by its products, we propose that ADK is not a stress-responsive enzyme per se, but plays a pivotal role in sustaining transmethylation reactions in general by serving as a coarse metabolic control to reduce the cellular concentration of free adenosine. In support of this model, we grew *Arabidopsis* under a short-day photoperiod that promotes secondary cell wall development and found both ADK activity and transcript levels to increase severalfold.

L58 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2000:756902 CAPLUS
 DOCUMENT NUMBER: 133:319274
 TITLE: Biological fluid enzymic assay methods for folate and other analytes
 INVENTOR(S): Han, Quinghong; Tang, Li; Xu, Mingxu; Tan, Yuying; Yagi, Shigeo
 PATENT ASSIGNEE(S): Anticancer, Inc., USA
 SOURCE: PCT Int. Appl., 12 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000063420	A2	20001026	WO 2000-US10430	20000417
WO 2000063420	A3	20010426		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6329162	B1	20011211	US 2000-550723	20000417
EP 1171630	A2	20020116	EP 2000-922298	20000417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002037545	A1	20020328	US 2001-3597	20011030
PRIORITY APPLN. INFO.:				
			US 1999-129730P	P 19990416
			US 2000-550723	A3 20000417
			WO 2000-US10430	W 20000417

AB A method to assess the level of folate in a biol. sample comprises: providing said sample with glycine N-methyltransferase (GMT) and with an excess of S-adenosyl methionine (SAM) and of glycine; providing a control which contains no folate with said GMT and excess SAM and glycine in comparable amts. to those provided to the sample; and comparing the concn. of at least one product formed in the sample with the concns. of said product formed in the control, whereby the difference in levels of said product in the sample as compared to the control is directly proportional to the level of folate in the sample. Also disclosed is a method to detect and measure the concn. of analytes which can be subjected to protocols that generate hydrogen peroxide. This method comprises measuring the level of hydrogen peroxide by adding peroxidase and a dialkylphenylene diamine.

=> s methyltransferase and (homocysteine hydrolase or homocysteinase or sahh)
TOTAL FOR ALL FILES
L65 84 METHYLTRANSFERASE AND (HOMOCYSTEINE HYDROLASE OR HOMOCYSTEINASE
OR SAHH)

=> s 165 and glycine
TOTAL FOR ALL FILES
L72 10 L65 AND GLYCINE

=> dup rem 172
PROCESSING COMPLETED FOR L72
L73 8 DUP REM L72 (2 DUPLICATES REMOVED)

=> d ibib abs

L73 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:763235 CAPLUS
DOCUMENT NUMBER: 135:314399
TITLE: Detection of variations in the DNA methylation profile
of genes in the determining the risk of disease
INVENTOR(S): Berlin, Kurt; Piepenbrock, Christian; Olek, Alexander
PATENT ASSIGNEE(S): Epigenomics A.-G., Germany
SOURCE: PCT Int. Appl., 636 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 68
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077373	A2	20011018	WO 2001-DE1486	20010406
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
DE 10019058	A1	20011220	DE 2000-10019058	20000406
WO 2001077373	A2	20011018	WO 2001-XA1486	20010406
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG		
WO 2001077373	A2	20011018	WO 2001-XB1486	20010406
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, CF, CG, CI, CM, GA, GW, ML, MR, NE, SN, TD, TG		
PRIORITY APPLN. INFO.:			DE 2000-10019058 A	20000406
			WO 2001-DE1486 W	20010406
AB	The invention relates to an oligonucleotide kit as probe for the detection of relevant variations in the DNA methylation of a target group of genes. The invention further relates to the use of the same for detg. the gene variant with regard to DNA methylation, a medical device, using an oligonucleotide kit, a method for detg. the methylation state of an individual and a method for the establishment of a model for establishing			

the probability of onset of a disease state in an individual. Such diseases may be: undesired pharmaceutical side-effects; cancerous diseases; CNS dysfunctions, injuries or diseases; aggressive symptoms or relational disturbances; clin., psychol. and social consequences of brain injury; psychotic disorders and personality disorders; dementia and/or assocd. syndromes; cardiovascular disease, dysfunction and damage; dysfunction, damage or disease of the gastrointestinal tract; dysfunction, damage or disease of the respiratory system; injury, inflammation, infection, immunity and/or anastasis; dysfunction, damage or disease of the body as an abnormal development process; dysfunction, damage or disease of the skin, muscle, connective tissue or bones; endocrine and metabolic dysfunction, damage or disease; headaches or sexual dysfunction. This abstr. record is one of several records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.

=> d ibib abs 2-

YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L73 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:526212 CAPLUS

DOCUMENT NUMBER: 135:119238

TITLE: High expression and production of high-specific activity recombinant s-adenosyl **homocysteinase** (**SAHH**) and improved assays for s-adenosylmethionine (SAM) and therapeutic uses thereof

INVENTOR(S): Hoffman, Robert M.; Xu, Mingxu; Han, Qinghong

PATENT ASSIGNEE(S): Anticancer, Inc., USA

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001051651	A2	20010719	WO 2001-US1114	20010112
WO 2001051651	A3	20020110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-176444P P 20000114

AB The invention provides novel methods relating to SAM detection and prodn. as well as a novel **SAHH** enzymic activity for use in such methods. Addnl. methods, compns., and kits relating to the novel **SAHH** are also provided. The invention provides an isolated and recombinant DNA encoding modified *Trichomonas vaginalis* **SAHH**. In another aspect, the **SAHH** gene is also modified to encode a modified HisoSAHH, which has an extra six histidines, in the N-terminal of the **SAHH** gene. In another aspect of the invention, the invention provides methods for the propagation and maintenance of the nucleic acids and their use in the expression of **SAHH** proteins. The methods may be used as part of a diagnostic protocol or as part of a therapeutic protocol to monitor the conditions or progress of the therapy.

L73 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:775265 CAPLUS

DOCUMENT NUMBER: 136:132090

TITLE: Investigation of differentially expressed genes during the development of mouse cerebellum

AUTHOR(S): Kagami, Yoshihiro; Furuichi, Teiichi

CORPORATE SOURCE: Laboratory for Molecular Neurogenesis, Brain Science

SOURCE: Institute, RIKEN, Wako, 351-0198, Japan
Gene Expression Patterns (2001), 1(1), 39-59
CODEN: GEPEAD; ISSN: 1567-133X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Before the discovery of DNA microarray and DNA chip technol., the expression of only a small no. of genes could be analyzed at a time. Currently, such technol. allows us the simultaneous anal. of a large no. of genes to systematically monitor their expression patterns that may be assocd. with various biol. phenomena. We utilized the Affymetrix GeneChip MullK to analyze the gene expression profile in developing mouse cerebellum to assist in the understanding of the genetic basis of cerebellar development in mice. Our anal. showed 81.6% (10.321/12.654) of the genes represented on the GeneChip were expressed in the postnatal cerebellum, and among those, 8.7% (897/10.321) were differentially expressed with more than a two-fold change in their max. and min. expression levels during the developmental time course. Further anal. of the differentially expressed genes that were clustered in terms of their expression patterns and the function of their encoded products revealed an aspect of the genetic foundation that lies beneath the cellular events and neural network formation that takes place during the development of the mouse cerebellum.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:756902 CAPLUS
DOCUMENT NUMBER: 133:319274
TITLE: Biological fluid enzymic assay methods for folate and other analytes
INVENTOR(S): Han, Quinghong; Tang, Li; Xu, Mingxu; Tan, Yuying; Yagi, Shigeo
PATENT ASSIGNEE(S): Anticancer, Inc., USA
SOURCE: PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000063420	A2	20001026	WO 2000-US10430	20000417
WO 2000063420	A3	20010426		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6329162	B1	20011211	US 2000-550723	20000417
EP 1171630	A2	20020116	EP 2000-922298	20000417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002037545	A1	20020328	US 2001-3597	20011030
PRIORITY APPLN. INFO.:				
US 1999-129730P P 19990416				
US 2000-550723 A3 20000417				
WO 2000-US10430 W 20000417				

AB A method to assess the level of folate in a biol. sample comprises: providing said sample with **glycine N-methyltransferase** (GMT) and with an excess of S-adenosyl methionine (SAM) and of **glycine**; providing a control which contains no folate with said GMT and excess SAM and **glycine** in comparable amts. to those provided to the sample; and comparing the concn. of at least one product formed in the sample with the concns. of said product formed in the control, whereby the difference in levels of said product in the sample as compared to the control is directly proportional to the level of folate in the sample. Also disclosed is a method to detect and measure the concn. of analytes which can be subjected to protocols that generate hydrogen peroxide. This method comprises measuring the level of hydrogen peroxide by adding peroxidase and a dialkylphenylene diamine.

L73 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:95648 CAPLUS
DOCUMENT NUMBER: 130:235348
TITLE: Genes expressed during the differentiation of
pancreatic AR42J cells into insulin-secreting cells
AUTHOR(S): Mashima, Hiroshiro; Yamada, Shiro; Tajima, Tomoko;
Seno, Masaharu; Yamada, Hidenori; Takeda, Jun; Kojima,
Itaru
CORPORATE SOURCE: Institute for Molecular and Cellular Regulation, Gunma
University, Maebashi, 371-8512, Japan
SOURCE: Diabetes (1999), 48(2), 304-309
CODEN: DIAEAZ; ISSN: 0012-1797
PUBLISHER: American Diabetes Association
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Pancreatic AR42J cells have the feature of pluripotency of the common precursor cells of the pancreas. Dexamethasone (Dx) converts them to exocrine cells, whereas activin A (Act) converts them into endocrine cells expressing pancreatic polypeptide. A combination of Act and betacellulin (BTC) converts them further into insulin-secreting cells. The present study identifies some of the genes involved in the process of differentiation that is induced by these factors, using the mRNA differential display and screening of the cDNA expression array. The expression levels of 7 genes were increased by Act alone, and a combination of Act and BTC increased the expression of 25 more genes. Of these, 16 represented known genes or homologues of genes characterized previously. Nine of the identified genes were unrelated to any other sequences in the database. An inhibitor of the mitogen-activated protein kinase pathway, PD098059, which blocks the differentiation into insulin-secreting cells, inhibited the expression of 18 of the 25 genes, suggesting that the proteins encoded by these genes are assocd. with the differentiation into insulin-producing cells. These include known genes encoding extracellular signaling molcs., such as parathyroid hormone-related peptide, cytoskeletal proteins, and intracellular signaling molcs. Identification and characterization of these differentially expressed genes should help to clarify the mol. mechanism of differentiation of pancreatic cells and the gene products that enable the .beta.-cells to produce insulin.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L73 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1988:197873 CAPLUS
DOCUMENT NUMBER: 108:197873
TITLE: Effect of DL-.alpha.-difluoromethylornithine on
methionine cycle intermediates in Trypanosoma brucei
AUTHOR(S): Yarlett, Nigel; Bacchi, Cyrus J.
CORPORATE SOURCE: Haskins Lab., Pace Univ., New York, NY, 10038, USA
SOURCE: Mol. Biochem. Parasitol. (1988), 27(1), 1-10
CODEN: MBIPDP; ISSN: 0166-6851
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Activities of enzymes involved in transmethylation reactions were detd. in bloodstream trypomastigotes of T. brucei brucei in infected rats. S-Adenosyl-L-methionine synthetase (EC 2.5.1.6), S-adenosyl-L-homocysteine hydrolase (EC 3.3.1.1), cystathionine synthase (EC 4.2.1.21), as well as several transmethylases were detected and localized in cytosolic rather than particulate fractions. HPLC anal. of methionine-cycle intermediates in cells from untreated rats and from rats treated with the ornithine decarboxylase inhibitor DL-.alpha.-difluoromethylornithine (DFMO) indicated that the inhibitor caused pronounced changes in concns. of these intermediates and dramatically altered the methylation index of the cell. DFMO apparently causes a wide range of metabolite disturbances, and multiple biochem. events are a sequel of its action on trypanosomes.

L73 ANSWER 7 OF 8

MEDLINE
ACCESSION NUMBER: 86300198 MEDLINE
DOCUMENT NUMBER: 86300198 PubMed ID: 3743383
TITLE: Altered methylation complex isozymes as selective targets
for cancer chemotherapy.

DUPLICATE 1

AUTHOR: Liao M C; Burzynski S R
 SOURCE: DRUGS UNDER EXPERIMENTAL AND CLINICAL RESEARCH, (1986) 12
 Suppl 1 77-86.
 Journal code: 7802135. ISSN: 0378-6501.
 PUB. COUNTRY: Switzerland
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198610
 ENTRY DATE: Entered STN: 19900321
 Last Updated on STN: 19970203
 Entered Medline: 19861007

AB MC2 is a ternary enzyme complex consisting of MAT, **methyltransferase** and **SAHH**. Three isozymes of **SAHH** have been identified from rat and mouse livers based on different kinetic properties. The Km values are 0.35 +/- 0.05 microM, 1.63 +/- 0.38 microM and 0.37 +/- 0.07 mM for **SAHH-L**, **SAHH-I**, and **SAHH-H** respectively. The corresponding low Km isozymes of MAT and **SAHH** form MCs-L which include RNA MCs, the intermediate Km isozymes form MC-I, and the high Km isozymes form MC-H which is **glycine** MC. MCs-L are common to all tissues whereas MC-I and MC-H are organ specific enzyme complexes. Low levels of MC-H in the liver of C3H/HeN mouse are correlated with the slow maturation of hepatocytes and the genetic predisposition to develop spontaneous PHC. Rat Novikoff ascites hepatoma and mouse spontaneous PHC have been shown to contain a **SAHH** isozyme displaying kinetic properties different from the corresponding normal **SAHH-L**. The abnormal kinetic properties of tumour **SAHH** are analogous to those of tumour MAT previously shown by the authors to be uniquely associated with malignant tissues. The tumour isozyme, which is named **SAHH-LT**, has a Km (AR) value of 2.18 +/- 0.22 microM. The altered tumour MC isozymes appear to play an important role in perpetuating malignant growth, because once the tumour growth was inhibited by poly (I) (C), the abnormal kinetic properties were no longer detectable. Thus abnormal tumour MCs may be exploited as selective targets for cancer chemotherapy. Evidence is presented to indicate that antineoplaston is a potent inhibitory effector of tumour rRNA MCs and an effective antitumor agent.

L73 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1983:211336 CAPLUS
 DOCUMENT NUMBER: 98:211336
 TITLE: Ethionine-induced alterations of tRNA metabolism
 AUTHOR(S): Kerr, S. J.
 CORPORATE SOURCE: Health Sci. Cent., Univ. Colorado, Denver, CO, 80262, USA
 SOURCE: Recent Results Cancer Res. (1983), 84(Modif. Nucleosides Cancer), 226-36
 CODEN: RRCRBU; ISSN: 0080-0015
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Rats fed 0.25% DL-ethionine [67-21-0] for 3 days showed elevated tRNA **methyltransferase** (I) [9014-53-3] and inhibited **glycine methyltransferase** [37228-72-1] levels in the liver. These changes persist throughout the carcinogenic regime and similar trends were obsd. in ethionine-induced liver tumors. Ethionine caused some fluctuations, although not consistent nor of the magnitude obsd. in liver, in these enzymes in the kidneys. D- [535-32-0] And L-ethionine [13073-35-3] were equally effective in elevating I in the liver. Ethionine elevated I in both male and female rats. Ethionine inhibited 1 isoenzyme form of S-adenosylmethionine synthetase [9012-52-6] in the liver, but had no effect on the other isoenzyme form. Ethionine had no effect on S-adenosyl-L-homocysteine hydrolase [9025-54-1] in the liver, but inhibited it in the resulting tumors. Me-deficient tRNA induction in the liver peaked between 24 and 48 h after ethionine treatment, then declined. Alk. RNase [9001-99-4] activity in the liver was diminished early by ethionine treatment, whereas acid RNase activity was increased.

=> log y